

REMARKS

The Applicant has filed the present Response in reply to the outstanding Official Action of October 25, 2004, and the Applicant believes the Response to be fully responsive to the Official Action for the reasons set forth below in greater detail.

At the onset, Applicant would like to thank the Examiner for allowing Claims 7-26 and indicating that Claim 6 has allowable subject matter and would be allowed if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Additionally, the Applicant would like to note that Claim 1 has been amended herewith for clarification purposes. Specifically, the claim has been amended to define the change quantities, as corresponding to the variation in time of the feature quantity.

The Applicant also respectfully submits new Claims 27-31 for examination. Claims 27-30 have similar subject matter as Claims 7, 12, 17, and 22, respectively, except that these claims are directed to an apparatus having **one** of the LSF calculating circuit, whole band energy calculating circuit, low band energy calculating circuit and the zero cross number calculating circuit, a corresponding filter and a corresponding average calculating section or a recording medium which has a program recorded for making device executed **one** group of processes which is listed in the claims (Claim 17 and 22), e.g., calculating a LSF, whole band energy, a low band energy, or a zero cross number, and the calculation of the corresponding change quantities

and average change quantities. While these claims are broader than Claims 7, 12, 17, and 22, these claims are patentably distinct from the cited reference for the same reasoning as the Examiner stated in his reasons for allowance.

Additionally, the Applicant submits that new Claim 31 is patentably distinct from the cited reference. Claim 31 is similar to original Claim 5 except that the phrase zero cross number has been removed. The prior art reference does not teach using a line spectral frequency, a whole band energy, and a low band energy as feature quantities.

Amended Claim 1 is patentably distinct from Takada, United States Patent No. 6,088,670. Specifically, the reference fails to teach using a long-time average of change quantities obtained by inputting the change quantities, which correspond to the variation in time of the feature quantity to filters.

The reference does not calculate a long time average of the changes in the feature quantities. The reference, at best, teaches calculating a long time average, using a long-term average circuit 5 of the absolute values (feature quantities). However, the reference does not calculate averages of the change quantities where the change quantities correspond to the variation in time of the feature quantity.

In stark contrast, the claimed invention calculates a long-term average of the change quantities to discriminate a voice section from a non-voice section. Accordingly, Claim 1 is patentably distinct from the cited reference.

With regard to Claim 2, the reference fails to teach that the change quantities of the feature quantity are calculated by using the feature quantity and the long-time average thereof. As mentioned above, the reference fails to teach or suggest calculating the change quantities and therefore cannot teach how such a quantity is calculated. Therefore, Claim 2 is patentably distinct from the reference.

With regard to Claim 3, in addition to being patentably distinct based upon its dependency from Claim 1, the Applicant submits that Claim 3 is patentably distinct from the reference for the following additional reasons.

The reference does not teach or suggest that the filters are switched based on a past determination or when the long-term average of the change quantities are calculated. Additionally, a switching means is not disclosed.


According to the present invention, the first through fourth filters are switched to the fifth through twelfth filters when the long-time average of said change quantities is calculated. The switching is based upon the discriminating result of a past frame. For example, the first filter receives a determination flag and the first change quantities. Depending on the value of the determination flag, the first switch outputs the first changing quantities to either the fifth filter or the sixth filter. When the determination flag is 1, the first switch outputs the first changing quantities to the fifth filter and when the determination flag is 0, the first switch outputs the first changing quantities to the sixth filter.

The Examiner identifies Col. 7, lines 4-20 as a teaching of switching the filters. The Applicant does not agree with the Examiner that the reference teaches a switch or switching of the filters depending on a past determination. The reference teaches that the value J1 is related to the change of the noise level and the changes of the short term weighted average value and the long-term weighted average value and is the smoothing value of the noise level. The J1 value is not the same as the value calculated and used in the claimed invention. Therefore, Claim 3 is patentably distinct from the reference.

Claims 4-5 are patentably distinct from the reference based upon their dependency from Claim 1.

In conclusion, the Applicant believes that the above-identified application is in condition for allowance and henceforth respectfully solicits the Examiner to allow the application. If the Examiner believes a telephone conference might expedite the allowance of this application, the Applicant respectfully requests that the Examiner call the undersigned, Applicant's attorney, at the following telephone number: (516) 742-4343.

Respectfully submitted,


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